

WBFSH General Assembly 2025  
on 10<sup>th</sup> - 14<sup>th</sup> October 2025 in Nottingham Road (RSA), South Africa

## Update from the EAAP Horse Commission

– report from EAAP 2025 and news from science

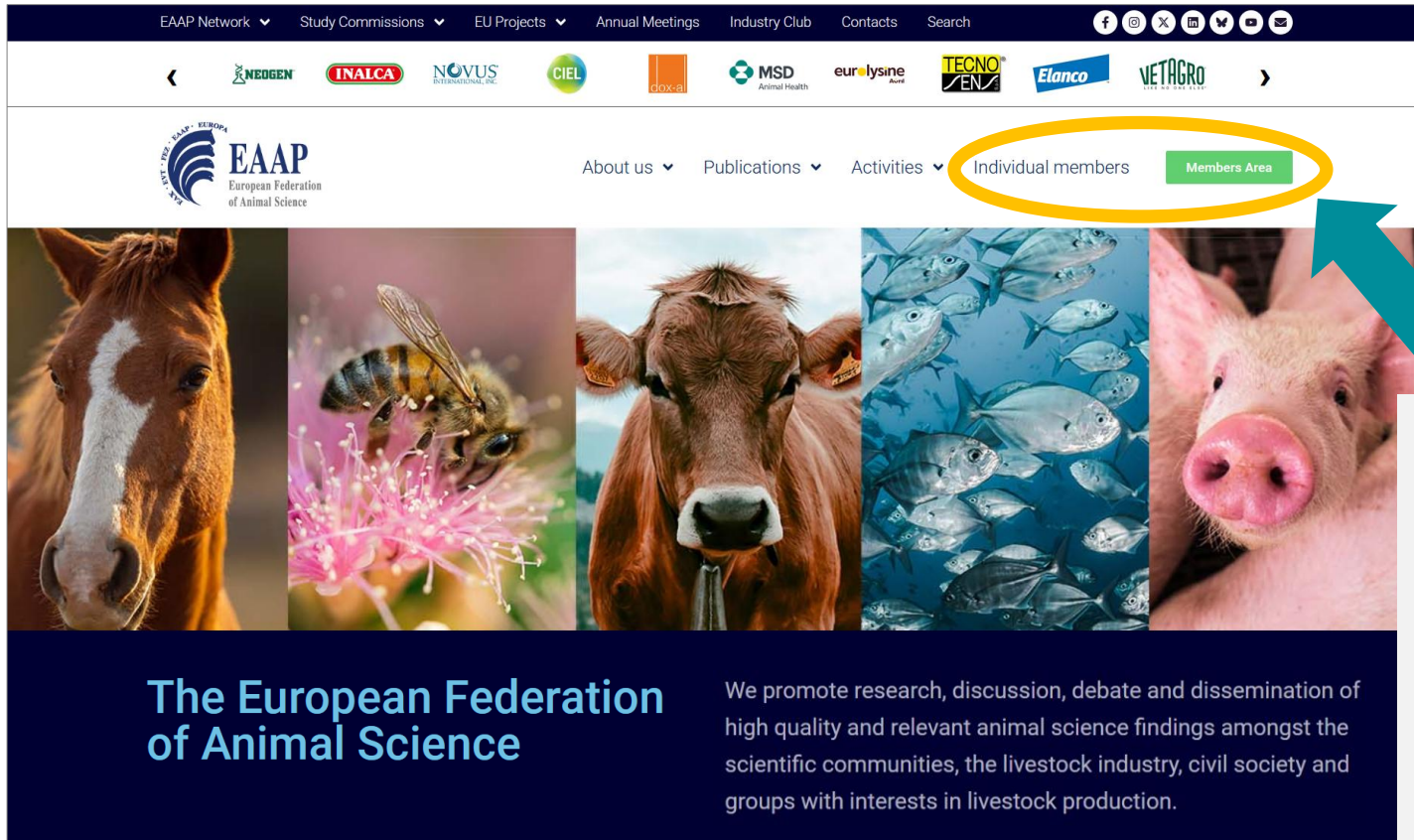
Kathrin F. Stock<sup>1\*</sup>, Rhys Evans<sup>2</sup>, Céline Vial<sup>3</sup>

<sup>1</sup> IT Solutions for Animal Production (vit), Verden, Germany; <sup>2</sup> Norwegian University College of Green Development (HGUt), Bryne, Norway; <sup>3</sup> French Institute for Horse and Riding (INRAE), Montpellier, France

\* E-mail: [friederike.katharina.stock@vit.de](mailto:friederike.katharina.stock@vit.de)

# Outline

- ❖ EAAP and EAAP Horse Commission
- ❖ EAAP annual meeting 2025
  - news of practical relevance from research and beyond with focus on hot topics for sport horse breeding
- ❖ other relevant activities
  - horse topics at the EAAP annual meeting 2026
  - International Workshop on Linear Profiling 2026
  - implications and prospects for WBFSH and horse breeding



EAAP Network Study Commissions EU Projects Annual Meetings Industry Club Contacts Search

NEODEN INALCA NOVUS CIEL MSD eurolysine TECNO Elanco VETAGRO

EAAP  
European Federation  
of Animal Science

About us Publications Activities Individual members Members Area

**The European Federation of Animal Science**

We promote research, discussion, debate and dissemination of high quality and relevant animal science findings amongst the scientific communities, the livestock industry, civil society and groups with interests in livestock production.

<https://eaap.org/>

## Benefits of EAAP individual membership:

- ✓ discounted registration fee for scientific sessions, workshops and webinars, including the EAAP annual meeting
- ✓ direct receipt of EAAP publications
- ✓ EAAP newsletter (E-mail) and access to newsletter archive with past issues
- ✓ restricted area with access to abstracts and presentations from previous EAAP annual meetings, tools for networking etc.
- ✓ ...

costs: none

required: membership in national organization  
(EAAP country member)

- ✓ News
- ✓ Events
- ✓ Links to specific resources, Study Commissions, EU projects etc.

# EAAP Horse Commission

- election of new EAAP HC president
  - Celine Vial, France – to be approved by the EAAP Council

EAAP HC Board*	<u>president:</u> Rhys Evans, Norway (2023 - <del>2026</del> 2025)
	<u>vice-president:</u> Celine Vial, France (2022 - 2025) Roberto Mantovani, Italy (2023 - 2026) Pasquale De Palo, Italy (2024 - 2027)
	<u>secretary:</u> Jackie Tapprest, France (2024 - 2027) Emanuela Valle, Italy (2024 - 2027)
	<u>industry representative:</u> Claire Neveux, UK (2023 - 2026) Samy Julliand, France (2024 - 2027)
	<u>EAAP Young Club:</u> Juliette Auclair, France (2023 - 2026) Kirsty Tan, Germany (2023 - 2026)

Working groups of the EAAP HC	Socio-economy WG <ul style="list-style-type: none"> <li>chair: Céline Vial, Rhys Evans</li> </ul>
	<div>           Interstallion WG           <div>BREEDING TOPICS</div> <ul style="list-style-type: none"> <li>chair: Steven Janssens, Belgium</li> <li>secretary: Kathrin F. Stock, Germany</li> <li>6-8 members (France, Sweden, The Netherlands, Spain, Ireland, ...)</li> </ul> </div>
	European Workshop for Equine Nutrition (EWEN) WG

\* EAAP regulations for board members of Study Commissions:  
in total max. 3 terms, with max. 2 terms in the same position



# EAAP annual meeting 2025

- meeting in the city of Innsbruck, Austria  
(capital of Tyrol, picturesque panorama of the Alps)
- figures and facts
  - about 1,500 participants (> 50 countries)
  - on-site event, with sessions split to two nearby locations
  - about 1,500 submitted abstracts  
→ 1,346 conference contributions  
(2/3 theatre presentations, 1/3 posters)
  - 85 scientific sessions  
(up to 13 sessions in parallel)



# Sessions on horses at EAAP 2025

## ■ Horse genetics and breeding

- 12 theatre presentations, 4 posters
- topics: genomic tools, performance (performance tests, young horse competitions), health

## ■ Advances in equine genomic tools and applications

- 7 theatre presentations, 2 posters

## ■ Horse and farm animal welfare, behaviour, and anthrozoology

- 5 (of 11) theatre presentations, 3 posters
- topics: health and welfare (training, exercise; housing, management), behavior, horse-human interaction

## ■ Innovations and perspectives in horse keeping and in their roles in society

- 11 theatre presentations, 6 posters
- topics: roles of horses in modern society, housing and management (training, feeding), environment

➤ 50 contributions in total (4 % of all EAAP 2025 papers)

# S8 Horse genetics and breeding

genomic tools  
performance  
health



- Application of Neogen's GGP Equine 70K SNP Array (H. Hofeneder-Barclay, C. Jansen-Noordijk, R. Bergsma)
- Evolution to genomic selection with the EQUIGENE SNP Array in purebred Spanish Horse (H. Srihi, M. Valera, C. Ziadi, N. Laseca, A. Rodríguez Sainz De Los Terreros, P. Azor, I. González, A. Gil, D. Perdomo-González, J. Poyato, A. Encina, S. Demyda-Peyras, A. Molina)
- Evaluating the impact of a new stallion performance testing concept on genetic progress using stochastic simulation (A. Hassanpour, T. Pook, L. Büttgen, C. Große-Brinkhaus)
- Young horse competition results boost genetic evaluation for dressage performance (C. Jansen-Noordijk, R. Bergsma)
- Unraveling the hidden genetic load: analysis of inbreeding depression in dressage performance of Pura Raza Española Horse (M. Ripollés-Lobo, D. Perdomo-González, M. Valera)
- Association of infrared imaging in young horses with genetic functional longevity in show jumping (S. Harari, B. Dumont Saint Priest, S. Deretz, A. Ricard)
- Genetic parameters of clinical and radiological findings of candidate stallions presented for licensing for German Warmblood breeding (K. F. Stock, M. S. Folgmann, K. Feige, U. Delling)
- Genomic insights into limb conformation defects in Pura Raza Española horse (N. Laseca, A. Molina, C. Ziadi, D. Perdomo, A. Rodríguez Sainz De Los Terreros, M. Valera)
- Breeding against chronic progressive lymphedema in Belgian Draft horses: can radiography provide an improved phenotype? (R. Meyermans, S. Graindourze, N. Buys, K. Vanderperren, M. Oosterlinck, S. Janssens)
- Detrimental alleles detection in Norwegian Fjord horse (N. Almaas Smogeli, I. Hunter Holmøy, H. Fjerdingsby Olsen, S. Lykkjen, P. Berg)
- Responsible and qualified horse breeding to protect health – a collaborative project to reduce squamous cell carcinoma of the eye in Austrian Haflinger and Noriker (L. Radovic, D. Rigler, B. Nell, I. Schwendenwein, M. Dolezal, J. Wieser, B. Wallner)
- Does nose shape have a predictive value for equine personality? (N. Krattenmacher, A. Hansen, G. Thaller, A. Günther, D. Tautz, A. Seidel)

# S8 Horse genetics and breeding

genomic tools  
performance  
health



EAAP  
European Federation  
of Animal Science



The Horse  
Study Commission



- Application of Neogen's GGP Equine 70K SNP Array (H. Hofeneder-Barclay, C. Jansen-Noordijk, R. Bergsma)
- Evolution to genomic selection with the EQUIGENE SNP Array in purebred Spanish Horse (H. Srihi, M. Valera, C. Ziadi, N. Laseca, A. Rodríguez Sainz De Los Terreros, P. Azor, I. González, A. Gil, D. Perdomo-González, J. Poyato, A. Encina, S. Demyda-Peyras, A. Molina)
- Evaluating the impact of a new stallion performance testing concept on genetic progress using stochastic simulation (A. Hassanpour, T. Pook, L. Büttgen, C. Große-Brinkhaus)
- Young horse competition results boost genetic evaluation for dressage performance (C. Jansen-Noordijk, R. Bergsma)
- Unraveling the hidden genetic load: analysis of inbreeding depression in dressage performance of Pura Raza Española Horse (M. Ripollés-Lobo, D. Perdomo-González, M. Valera)
- Association of infrared imaging in young horses with genetic functional longevity in show jumping (S. Harari, B. Dumont Saint Priest, S. Deretz, A. Ricard)
- Genetic parameters of clinical and radiological findings of candidate stallions presented for licensing for German Warmblood breeding (K. F. Stock, M. S. Folgmann, K. Feige, U. Delling)
- Genomic insights into limb conformation defects in Pura Raza Española horse (N. Laseca, A. Molina, C. Ziadi, D. Perdomo, A. Rodríguez Sainz De Los Terreros, M. Valera)
- Breeding against chronic progressive lymphedema in Belgian Draft horses: can radiography provide an improved phenotype? (R. Meyermans, S. Graindourze, N. Buys, K. Vanderperren, M. Oosterlinck, S. Janssens)
- Detrimental alleles detection in Norwegian Fjord horse (N. Almaas Smogeli, I. Hunter Holmøy, H. Fjerdingsby Olsen, S. Lykkjen, P. Berg)
- Responsible and qualified horse breeding to protect health – a collaborative project to reduce squamous cell carcinoma of the eye in Austrian Haflinger and Noriker (L. Radovic, D. Rigler, B. Nell, I. Schwendenwein, M. Dolezal, J. Wieser, B. Wallner)
- Does nose shape have a predictive value for equine personality? (N. Krattenmacher, A. Hansen, G. Thaller, A. Günther, D. Tautz, A. Seidel)



# S8 Horse genetics and breeding

genomic tools  
performance  
health



- Application of Neogen's GGP Equine 70K SNP Array (H. Hofeneder-Barclay, C. Jansen-Noordijk, R. Bergsma)
- Evolution to genomic selection with the EQUIGENE SNP Array in purebred Spanish Horse (H. Srihi, M. Valera, C. Ziadi, N. Laseca, A. Rodríguez Sainz De Los Terreros, P. Azor, I. González, A. Gil, D. Perdomo-González, J. Poyato, A. Encina, S. Demyda-Peyras, A. Molina)
- Evaluating the impact of a new stallion performance testing concept on genetic progress using stochastic simulation (A. Hassanpour, T. Pook, L. Büttgen, C. Große-Brinkhaus)
- Young horse competition results boost genetic evaluation for dressage performance (C. Jansen-Noordijk, R. Bergsma)
- Unraveling the hidden genetic load: analysis of inbreeding depression in dressage performance of Pura Raza Española Horse (M. Ripollés-Lobo, D. Perdomo-González, M. Valera)
- Association of infrared imaging in young horses with genetic functional longevity in show jumping (S. Harari, B. Dumont Saint Priest, S. Deretz, A. Ricard)
- Genetic parameters of clinical and radiological findings of candidate stallions presented for licensing for German Warmblood breeding (K. F. Stock, M. S. Folgmann, K. Feige, U. Delling)
- Genomic insights into limb conformation defects in Pura Raza Española horse (N. Laseca, A. Molina, C. Ziadi, D. Perdomo, A. Rodríguez Sainz De Los Terreros, M. Valera)
- Breeding against chronic progressive lymphedema in Belgian Draft horses: can radiography provide an improved phenotype? (R. Meyermans, S. Graindourze, N. Buys, K. Vanderperren, M. Oosterlinck, S. Janssens)
- Detrimental alleles detection in Norwegian Fjord horse (N. Almaas Smogeli, I. Hunter Holmøy, H. Fjerdingsby Olsen, S. Lykkjen, P. Berg)
- Responsible and qualified horse breeding to protect health – a collaborative project to reduce squamous cell carcinoma of the eye in Austrian Haflinger and Noriker (L. Radovic, D. Rigler, B. Nell, I. Schwendenwein, M. Dolezal, J. Wieser, B. Wallner)
- Does nose shape have a predictive value for equine personality? (N. Krattenmacher, A. Hansen, G. Thaller, A. Günther, D. Tautz, A. Seidel)

# S51 Advances in equine genomic tools and applications

*genomic tools*  
➤ *basic / technical*  
➤ *routine*



**EAAP**  
European Federation  
of Animal Science



The Horse  
Study Commission



- Haplotype-based GWAS in Swedish Warmblood Horses (SWB) (M. Ablondi, Å. Gelinder Viklund, V. Asti, S. Eriksson, S. Mikko)
- An increased number of heterozygous calls in the Axiom™ Equine Genotyping Array (A. Gmel, A. Pirani, L. Mcinnis, M. Neuditschko)
- Microsatellite imputation using a 60K SNP Chip for parentage control in French horse breeds (A. Govignon, B. Dumont Saint Priest, E. Oden, S. Danvy, A. Ricard)
- Extended vs. new imputation systems for supporting transfer to SNP-based parentage control in horses of different breeds (M. Wobbe, H. Alkhoder, K. F. Stock)
- Identification of candidate causal variants on ECA1 for withers height in horses (P. Reich, C. Falker-Gieske, K. F. Stock, W. Nolte, C. Kühn, G. Thaller, J. Tetens)
- Transcriptomic characterisation of recurrent exertional rhabdomyolysis in Thoroughbred horses (E. Attree, C. Cuffe, M. Mccue, E. Clark, R. J. Piercy, A. Psifidi)
- Identification of a SNP in eca-mir-449b and its potential impact on miRNA processing and gene regulation in horses (M. Šimon, T. Kunej, B. Luštrek, S. Bogičević, K. Potočnik)
- Genomic diversity patterns in Noric of Muran horse: implications for population management (N. Moravčíková, L. Vostrý, H. Vostrá-Vydrová, K. Pálešová, E. Mixtajová, R. Kasarda)
- Genomic selection evaluation of neck morphology in Pura Raza Española horses: a comparative analysis (C. Ziadi, M. Ripollés-Lobo, M. Valera, N. Laseca, A. Molina)

# S51 Advances in equine genomic tools and applications

genomic tools  
performance  
➤ conformation



EAAP  
European Federation  
of Animal Science



The Horse  
Study Commission



- Haplotype-based GWAS in Swedish Warmblood Horses (SWB) (M. Ablondi, Å. Gelinder Viklund, V. Asti, S. Eriksson, S. Mikko)
- An increased number of heterozygous calls in the Axiom™ Equine Genotyping Array (A. Gmel, A. Pirani, L. Mcinnis, M. Neuditschko)
- Microsatellite imputation using a 60K SNP Chip for parentage control in French horse breeds (A. Govignon, B. Dumont Saint Priest, E. Oden, S. Danvy, A. Ricard)
- Extended vs. new imputation systems for supporting transfer to SNP-based parentage control in horses of different breeds (M. Wobbe, H. Alkhoder, K. F. Stock)
- Identification of candidate causal variants on ECA1 for withers height in horses (P. Reich, C. Falker-Gieske, K. F. Stock, W. Nolte, C. Kühn, G. Thaller, J. Tetens)
- Transcriptomic characterisation of recurrent exertional rhabdomyolysis in Thoroughbred horses (E. Attree, C. Cuffe, M. Mccue, E. Clark, R. J. Piercy, A. Psifidi)
- Identification of a SNP in eca-mir-449b and its potential impact on miRNA processing and gene regulation in horses (M. Šimon, T. Kunej, B. Luštrek, S. Bogićević, K. Potočnik)
- Genomic diversity patterns in Noric of Muran horse: implications for population management (N. Moravčíková, L. Vostrý, H. Vostrá-Vydrová, K. Pálešová, E. Mixtajová, R. Kasarda)
- Genomic selection evaluation of neck morphology in Pura Raza Española horses: a comparative analysis (C. Ziadi, M. Ripollés-Lobo, M. Valera, N. Laseca, A. Molina)

# S51 Advances in equine genomic tools and applications

genomic tools  
performance  
health



EAAP  
European Federation  
of Animal Science



The Horse  
Study Commission



- Haplotype-based GWAS in Swedish Warmblood Horses (SWB) (M. Ablondi, Å. Gelinder Viklund, V. Asti, S. Eriksson, S. Mikko)
- An increased number of heterozygous calls in the Axiom™ Equine Genotyping Array (A. Gmel, A. Pirani, L. Mcinnis, M. Neuditschko)
- Microsatellite imputation using a 60K SNP Chip for parentage control in French horse breeds (A. Govignon, B. Dumont Saint Priest, E. Oden, S. Danvy, A. Ricard)
- Extended vs. new imputation systems for supporting transfer to SNP-based parentage control in horses of different breeds (M. Wobbe, H. Alkhoder, K. F. Stock)
- Identification of candidate causal variants on ECA1 for withers height in horses (P. Reich, C. Falker-Gieske, K. F. Stock, W. Nolte, C. Kühn, G. Thaller, J. Tetens)
- Transcriptomic characterisation of recurrent exertional rhabdomyolysis in Thoroughbred horses (E. Attree, C. Cuffe, M. Mccue, E. Clark, R. J. Piercy, A. Psifidi)
- Identification of a SNP in eca-mir-449b and its potential impact on miRNA processing and gene regulation in horses (M. Šimon, T. Kunej, B. Luštrek, S. Bogićević, K. Potočnik)
- Genomic diversity patterns in Noric of Muran horse: Implications for population management (N. Moravčíková, L. Vostrý, H. Vostrá-Vydrová, K. Pálešová, E. Mixtajová, R. Kasarda)
- Genomic selection evaluation of neck morphology in Pura Raza Española horses: a comparative analysis (C. Ziadi, M. Ripollés-Lobo, M. Valera, N. Laseca, A. Molina)

# S39 Innovations and perspectives in horse keeping and in their roles in society I

*management*

➤ *performance*

➤ *health*

- What is a working horse in the 21<sup>st</sup> Century – some implications for welfare and veterinary science (R. Evans)
- Improving climate parameters in horse husbandry by using a tube ventilation system (I. Mösenbacher-Molterer, E. Zentner)
- Body temperature monitoring in equines raised in inner areas using GPS tracking (A. Fatica, L. Todini, F. Fantuz, E. Salimei)
- Wearable continuous fitness tracker device coupled with omics to evaluate horse resilience and adaptation to heat and exercise stresses (S. Mecocci, E. Porzio, M. Pepe, G. Chillemi, E. Chiaradia, F. Beccati, K. Cappelli)
- Prevalence and risk of orthopedic diagnoses in insured Swedish Warmblood horses (S. Bonow, E. Hernlund, S. Eriksson, E. Strandberg, Å. Gelinder Viklund)
- Relationship between gastric content ecosystem, mucosal microbiota and integrity of glandular mucosa in horses (S. Julliand, C. Omphalius, V. Julliand)
- The effect of composting on anthelmintic residues in horse manure (M. Meyer, C. Eiberger, D. Winter, L. E. Hölzle, T. Schilling)
- Economic comparison of different methods of processing horse manure into a valuable fertilizer and the associated ecosystem services (P. Butscher, M. Meyer)
- Equine milk production in France: challenges and solutions (C. Vial, L. Legendre, V. Deneux-Le Barh)
- Equine assisted services in France: current status and challenges for the future (C. Vial, C. Neveux, M. Valenchon, C. Kergus)
- Horse-assisted priming: an uncharted area? The Impact of horses on neurobiological reactions, interaction, attachment and their potential role in our current crisis-ridden society (I. Boitllehner)



# S39 Innovations and perspectives in horse keeping and in their roles in society II

- Effect of fenbendazole administration on the fecal microbiota and secretory IgA in young foals (L. Marchal, S. Julliand, N. Langevin, P. Grimm)
- Cobalamin in stallion sperm extender reduces sperm lipid peroxidation and improves kinetic factors after thawing (B. Ghasemi Panahi, F. Jafari)
- First insights into effects of an early start of training on performance and health of German Thoroughbred horses (S. Weiß, J. Probst, N. Kemper, M. Venner, N. Volkmann)
- Effect of feed supplement on locomotion score and joint health biomarkers in sport horses (M. Hilaire, J. Gely, E. Portal, I. Gaudry, E. Richard, A. Miliotis, F. Barbé, C. Villot, M. Gauthier)
- The impact of yeast supplementation on horses' coat condition, hoof health and feces quality (A. Pawłowska, E. Jastrzębska, M. Rakebrandt, A. Sobieraj)
- Occurrence and prevalence of endophyte toxins in meadows and pastures for horses across different European countries (R. Khiaosa-Ard, L. Lindner, V. Milojevic, Q. Zebeli, B. U. Metzler-Zebeli)

# Key messages for sporthorse breeding |

- increase and continued development of genomic applications
    - science → practice
    - different systems for genome-wide analyses (SNP arrays of 70K+; Illumina, ThermoFisher)
    - transfer to SNP-based parentage control as driver of genomically supported horse breeding
- status quo regarding the number of SNP-genotyped sporthorses
- The Netherlands (KWPN): about 65,000 horses
  - Germany (IAFH = all major studbooks): about 120,000 horses (↑ since 2021, in 2025 95% of Warmblood foals)
  - France: stepwise routine implementation with 10,000 horses in 2026, all horses from 2027 onwards

# Key messages for sporthorse breeding II

- increase and continued development of genomic applications
    - science → practice
    - different systems for genome-wide analyses (SNP arrays of 70K+; Illumina, ThermoFisher)
    - transfer to SNP-based parentage control as driver of genomically supported horse breeding
- status quo regarding the number of SNP-genotyped sporthorses
- The Netherlands (KWPN): about 65,000 horses
  - Germany (IAFH = all major studbooks): about 120,000 horses (↑ since 2021, in 2025 95% of Warmblood foals)
  - France: stepwise routine implementation with 10,000 horses in 2026, all horses from 2027 onwards
- development of existing breeding routines
    - new / improved data sources for genetic evaluations (young horses ↔ sport performance)
    - approaches for integrating health aspects, resilience, longevity
    - trait definition and optimized data collection

# Key messages for sporthorse breeding III

- responsible breeding / social license to operate
  - benefit from improved conditions for population management
    - monitoring of genetic defects
    - refined measures of genetic diversity and inbreeding
  - research findings on health and welfare impact of common practices, e.g. start of training

# Key messages for sporthorse breeding III

- responsible breeding / social license to operate
  - benefit from improved conditions for population management
    - monitoring of genetic defects
    - refined measures of genetic diversity and inbreeding
  - research findings on health and welfare impact of common practices, e.g. start of training

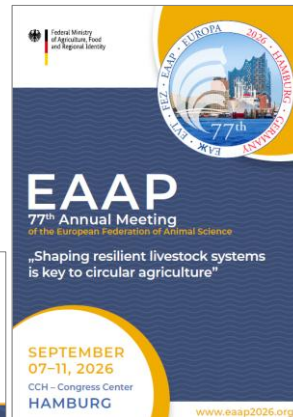


# Plans and prospects: EAAP 2026



- Germany hosting the next EAAP annual meeting
- local scientific committee with contact persons for study commission
- support of planning:
  - ✓ session topics
  - ✓ possible satellite meetings

booklet for download:



## Satellite Workshop to EAAP 2026 in Hamburg, Germany: **When should young horses start training – physical and mental maturity for racing and equestrian sports**

Organisers: Graf Lehndorff Institute (Vetmeduni Vienna, AT & Brandenburg State Stud, D) and Beaufort Cottage Educational Trust (Newmarket, UK)

### Commission on Horse (H)

Contact person from SC DEU: PD Dr. med. vet. habil. Kathrin F. Stock



### Draft session topics: suggestions from local organizers (Germany)

1. Genetic defects and health traits in the breeding programs for horses  
aims / expected contents: overview of different approaches, discussion of challenges of systematic data collection, exchange on successful monitoring and management strategies, identification of collaboration options across studbooks and countries
2. The role of reproductive technologies in equids  
aims / expected contents: current and expected future role of different assisted reproductive technologies, quantitative and qualitative insights, assessment from different perspectives, options for endangered breeds
3. Roles of equids, market expectations and breeding goals as factors of sustainable development of the equine sector  
aims / expected contents: traditional and new roles of horses and other equids in modern societies, status and possible development of goal setting

# Plans and prospects: linear profiling

- linear description as practice-proven system
  - appreciated supplement (or possibly replacement) of traditional valuating scoring
  - Warmblood horses worldwide, but increasingly also other horse breeds
- framework for collecting high quality data
  - standardization
  - harmonization (regular training of evaluators)
  - systematic data monitoring

## Save the date

**8<sup>th</sup> IWSLP**  
**14 - 15 April 2026**  
**Celle-Adelheidsdorf, Germany**



International Workshop on Linear Profiling of Horses

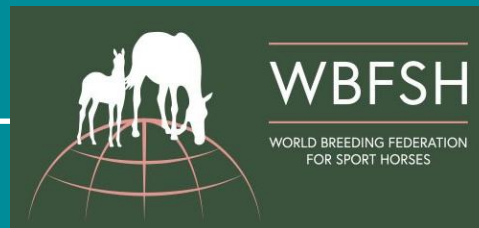
- exchange of practice and science to promote application of linear description
- lead topics: linear profiling of foals, of jumping (free, under rider), in non-Warmblood breeds
- international speakers, theory and practice



### Save the date

8<sup>th</sup> Internat. Workshop on Linear Profiling  
14 - 15 April 2026  
Celle-Adelheidsdorf, Germany

- genomic tools as highly valuable helpers in future-oriented, responsible and successful horse breeding – ready for use in research and routine!
- remaining challenges relating to efficient use of resources and required high quality data on target traits  
– motivation for collaboration and exchange



– *Thank you!* –

